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## CLUB MEETING INFORMATION

### Meetings

Monthly on First Thursdays

Next Meeting Date/Time  
7:00 pm  
Thurs, May 7<sup>th</sup>, 2026

### Build & Learn Sessions

Most Months on Third Thursdays

Next Session Date/Time  
6:00 pm or 7:00 pm  
Check the club [calendar](#)

Location  
Pilgrim Community Church  
[500 Arch Street](#)  
[Leavenworth, KS 66048](#)

### Club Breakfast

Every Thursday  
7:30 am  
at  
[The Depot 1887](#)  
781 Shawnee Street  
Leavenworth, KS 66048



The depot  
est. 1887

## From the President's Desk

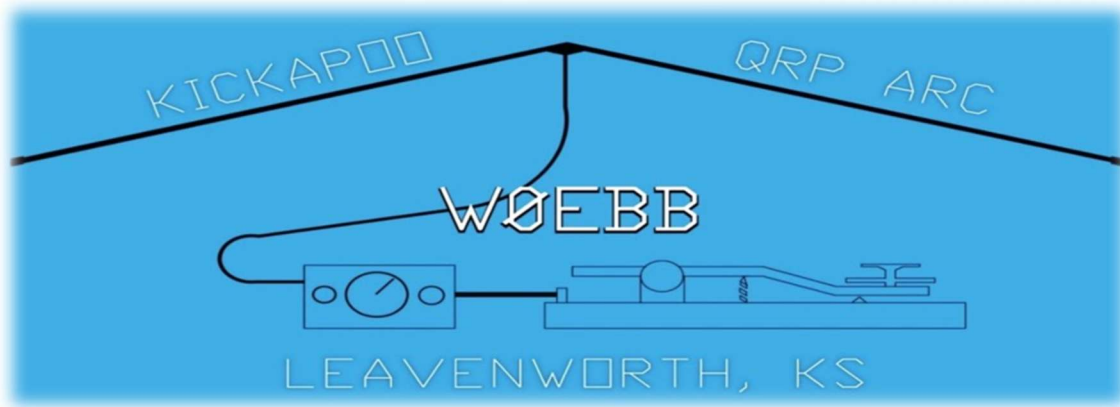
Hello everyone, I hope you all are doing well and are enjoying the nice weather that we are having. Even though there has been some rain and storms moving through, the temperatures are climbing and the sun is shining.

The Raytown Ham Bash was a great time. Many of our members were there and they had an amazing turnout. The MECC had a meeting on the World Cup. Roxann will have all the up-to-date information for us at the next meeting. I was able to sit in a seminar on the Mesh Tastic Radio. If you haven't Heard about Mesh Tastic Radio yet, it is really something that you should look into. We will have a short discussion on it at our next meeting also.

We need volunteers for the weekly nets. There are several spots that need to be filled. If you would like to volunteer for Net Control, Alt Net Control, or Logger please let Roxanne or myself know. Please volunteer, it's a great opportunity to learn how to run a net. No one is perfect the first time. Just roll with it and have fun.

The Dayton Ham Fest is a couple weeks away, if you are going, I wish you safe travels and I hope you enjoy your trip. I'll see you there!

73s Stephen Fick  
W9WTY



From the Kickapoo QRP ARC operating desk

The month of March saw a lot more activity doing SOTA activations, along with a good opportunity to attend the Ozarkcon event in Branson Missouri which occurred on March 27<sup>th</sup> and 28<sup>th</sup>.

Our PKARC was well represented there by Martha Auchard – W0ERI, Steve Rice – W0SER, Guy Younger – KF0KOS, John McBurney – KF0LNZ, Loren Knight – KF0QAL and Gary Auchard – W0MNA.

In the days leading up to the Ozarkcon event we were able to activate a number of summits. The first summit was called Webster County Highpoint and is located just east of the Springfield Missouri area. This is an easy drive-up summit. This summit was activated on Wednesday followed by checking into the Stone Castle Inn where the Ozarkcon event is held.

On Thursday our group went to a summit called Boat Mountain located near Harrison Arkansas. This is also a drive-up summit, but the road up to the summit is best driven by a high clearance AWD or 4WD type vehicle. We were able to make some summit to summit contacts on 2 meters with friends that were on Kilgore Mountain Arkansas making it an interesting activation. Following this activation we drove back to Harrison Arkansas and had lunch at “T’s” BBQ which has become a favorite lunch stop for our group.

On Thursday afternoon we drove over to Kilgore Mountain Arkansas which was another drive-up summit. We activated this summit using only 2 meters handheld radios. This was quite an interesting task, but we were able to get in summit to summit contacts with our friends over on Boat Mountain.

On Friday morning we drove over to Whitney Mountain Arkansas, another drive-up summit, and our last summit for this trip. It was a cold and windy day but we were able to make enough contacts and get back to a warm vehicle and head back to Branson.

Friday evening we attended the Ozarkcon banquet and were well fed. Following the banquet we all attended the building session to build the project called the Mentho-Morse keyer. This was a fun device to build and fits into an Altoids tin. That comment should answer why I had asked people to give me their empty Altoids tins for the last few weeks. We had a total of 34 builders in the group and the session lasted about two and a half hours.

On Saturday we had the seminars which included a lot of interesting topics. In total there were six different presenters and a lot of good information was passed on to the group. There were about 110 to 115 hams in attendance overall.

At the end of the conference the big prize drawing event occurred. Many prizes were given out with most of our group receiving some type of prize. Martha brought home a nice dual band hand held radio she won in the drawings.

Overall the event was a great success as usual. I’m already looking for the next Ozarkcon event in 2027 so maybe those in the club that did not attend this year will do so next year. I’ll see you at the PKARC meetings and Thursday morning breakfast gatherings.  
Gary Auchard - W0MNA



# Secretary's

## Page

Pilot Knob Amateur Radio Club  
Meeting Minutes  
April 9th, 2026



### Call to Order

The meeting of the PKARC was held on April 9<sup>th</sup>, at Pilgrim Community Church. It began at 7:00 pm and was presided over by Stephen (W9WTY) President, Guy (KF0KOS) Vice President, John (KF0LNZ) Treasurer and Roxann (KZ0IMO) as Secretary.

### Roll Call

Those in attendance: Gary (W0MNA), Martha (W0ERI), Victor (KD0PZV), Randy (K0AWW), Thadd (KF0PXE), Keith (KF0KBC), Stephen (W9WTY), Jim (KF0VJV), Loren (KF0QAL), Roxann (KZ0IMO), John (KF0LNZ), Ron (N0CALL), Loren (KB0YME), Max (K0MDP), Steve (W0SER), Tom (KF0RWS), Guy (KF0KOS), Don (KF0MZG), new member Michael Stanley (KE0GEX) and guests Ashley (KF0TKM) & Stephen Muller (KF0TKN), Junior and wife.

Around of introductions were made.

Stephen then gave Guy the floor. Guy passed out some information regarding the upcoming Field Day on June 27&28<sup>th</sup>. He touched on some topics while others would be discussed later in the meeting.

Next the floor was given to Roxann. Her comments as Secretary were to let her know if you do not want to be listed in the club directory. Then she touched on the ARES May 9<sup>th</sup> TTX at Bernard park from 10-12. Bring table and chairs, radio gear, 24 hr deployment kit and any items you wished checked off your ARES task book. Then a reminder was given to have minutes approved.

John made a motion to approve the minutes from March. Guy Seconded. All were in favor. Motion Carried.

### Treasurers Report

John discussed the March 2026 report. This reflected the change to the amounts for the Memorials that were voted on last month. He then brought up a suggestion to move \$2000 from checking to savings. Some discussions took place. Members inquired about the possibility of moving into a short-term CD. This will be looked in too. Tom motioned to move the \$2000 from checking into savings. Keith seconded. Vote was taken. Motion carried.

Next Thadd motioned to approve the March Treasurers Report. Gary seconded. All were in favor. Motion carried.

Roxann gave a presentation/overview of groups.io. She demonstrated how to locate the different groups within the program. How to make hashtags. Find the folders, calendar and how to locate previous posts. Then she showed how you can create a message inside of groups.io and then outside via email and then demonstrated how to add pictures or attachments. She strongly encouraged members to only use the reply to sender function unless it was meant for the whole group to see your reply. Then she answered questions.

Randy and Guy then talked more about Field Day. The idea is to have hot seat antennas so that you can bring your rig, connect and then operate from. Randy will not be able to come to Field Day. Roxann volunteered to be Field Site Representative, Information Booth and point of contact. Gary will be the Safety Officer. Roxann will send out a [pkarc@groups.io](mailto:pkarc@groups.io) poll to gather information and fill in open assignments. The group was reminded that at the next meeting we will need to bring laptops so that the N3FJP logging software for Field Day can be installed and taught. The group answered any questions that came up.

Gary made an announcement of a local ham was getting out of the hobby. There was a tower that needed to be taken down. Interested parties made plans with Gary.

Steve (W0SER) gave a quick update after an inquiry regarding the 444.50 antenna purchase discussion last month. At this time, they are still trouble shooting. So, no purchase is recommended currently.

Loren M gave a brief update to his possible surgery. The group verbalized their support.

### Adjournment

Thadd motioned for Adjournment and Keith seconded. All were in favor. Motion carried.

The meeting adjourned at 8:25 pm.

Respectfully submitted,

Roxann Kosmicki, KZ0IMO

Secretary



## Saint John Hospital Amateur Radio Club (SHARC)

SHARC provides an identity and rallying point for Radio Amateurs participating in activities at Saint John Hospital and supporting Providence Medical Center. The Amateur Radio portion of the Saint John Hospital Command Center is called the **SHARC Tank**. Club Call: **KFØLOG** President: Keith- **KFØKBC** Vice President: Tom - **KFØRWS** Secretary/Treasurer/Trustee: **Roxann – KZØIMO**

**May 4th, 2026, SHARC NET supporting the KCHEART Monthly Test**

Team 1 (W0SER, KE0SYO, W9WTY)) reports to SJH

Team 2 (K0MDP, KD7QOR and KB0YME) reports to PMC

\*Bring Laptop to PMC

All others report your availability to respond via 147.000 (+) 151.4 Hz FM to KFØLOG between 7:15 pm and 7:30 pm.

**SHARC Net**  
**Monday April 6<sup>th</sup>,**  
**2026**  
**1915-1930 Hours**  
**147.000 (+) 151.4**  
**Hz**

The **Kansas City Hospital Emergency Amateur Radio Team (KCHEART)** is the regional coordinating body for all hospital-based Amateur Radio stations used in auxiliary communications support to their host hospital. KCHEART forms a valuable voice and slow-speed data network between medical facilities.

The KCHEART Emergency Exercise Team has been formed. Our first exercise will be the Simplex test on the 4<sup>th</sup> of May. First, we will do our check-in's like normal on the 147.00R. Then we will check in when they take the regular roll call or our standard frequency (443.500/R + 151.4). Then the KCHEART Net Control will call on the districts one at a time to do a roll call (146.55 S). Net Control will wait for the district report and then call the next district and so forth till complete.

Please review this document in preparation of this event.

[Simplex.pdf](#)

There is a signal report link for on air active reports inside the document (<https://bit.ly/signalreport>). I am asking that only PMC and SJH teams utilize the online version. Those at home can record on a paper copy whom you hear but will submit the report to me (personal request).

Lastly, please mark your calendar for July 3<sup>rd</sup> and July 11<sup>th</sup> for our KCHEART Teams staffing of both hospitals for World Cup. We are currently thinking two three-hour shifts. The plan is to go three deep. July 3<sup>rd</sup> 3-6pm and 6-9pm. July 11<sup>th</sup> 4-7pm and 7-10pm. There may be a need to adjust based on the parking situations. We will not know that until the games begin. At a later time a sign up email will be sent out.

Roxann Kosmicki -KZ0IMO



### Reportable Hours

Exercises  
Training  
Public Service  
Community Service  
Emergencies  
Weather  
Meetings  
Unclassified Events

<https://forms.gle/UowzGAE3RVFLm3tD7>

## Leavenworth County Amateur Radio Emergency Service (ARES®)

Emergency Coordinator: Roxann Kosmicki -KZ0IMO, AUXC

Website: <https://KS-LV-ARES.signaleer.us>

Groups.io: <https://groups.io/g/KS-LV-ARES>

### **ARES Credentialing**

If you're new to ARES and need to start your credentials quest, here is a streamlined way to attain what you need.

1. **Download** the updated Amateur Radio Operator Credentialing Requirements and Resource Typing document revised on 01/17/25 from [KS-LV-ARES.signaleer.us](https://KS-LV-ARES.signaleer.us). Link is in the New Credentialing Requirements article (main page).

2. **Complete** the requirements for Radio Operator - Level IV. Courses are free and online at FEMA's Independent Study Program at <https://training.fema.gov/is/>.

3. **Submit** form and supporting documents according to instructions downloaded in Step 1. On the form, where it says, "MECC Agency including contact person name and email" use the following according to group you are affiliating with:

Leavenworth County ARES®  
Roxann Kosmicki  
[sobelizard@rocketmail.com](mailto:sobelizard@rocketmail.com)

Leavenworth Co. Emergency Mgmt  
Zach Phillips, Master Deputy  
[zphillips@lvsheriff.org](mailto:zphillips@lvsheriff.org)

KCHEART  
Matt May, Director  
[mmay@wycokck.org](mailto:mmay@wycokck.org)

SHARC/St John Hosp  
Roxann Kosmicki  
[sobelizard@rocketmail.com](mailto:sobelizard@rocketmail.com)

4. **Record** your achievements on your KS-LV-ARES Task Book. Task book is available upon request from Roxann-KZ0IMO. The Task Book will show the requirements you still need to complete for credentialing at the next level up.

NOTE: This section is reprinted from the February 2025 Newsletter. This information is also available on [KS-LV-ARES.signaleer.us](https://KS-LV-ARES.signaleer.us)



**Kansas Section  
District 4  
Zone C**



Roxann Kosmicki  
KS-LV-ARES Emergency  
Coordinator

April has been a busy month of meetings for me. I started the month off being sick for a week and attended meetings via Zoom. Then I had to play catch up from being sick. I enjoyed presenting about groups.io at the PKARC meeting on April 9<sup>th</sup> after which the weather spotters were alerted to a Severe Thunderstorm Warning. On the 13, 17 and the 23<sup>rd</sup> as well. Making it a busy month for weather events. On April 17<sup>th</sup> W9WTY notified the group that he was monitoring the 147.00R. I did hear the traffic towards the end.

April 21<sup>st</sup> Tom (KF0RWS) and Ed (KD7QOR) were able to attend the Heartland Readiness Full-Scale Exercise. I look forward to Tom's article on that experience. On the April 23<sup>rd</sup> activation; I had all my gear in the car and managed to run NCM from my car. The experience was interesting because of how hard the rain came in, making it difficult to hear the small speaker. Then there were all the notifications that came in over the county radio and the weather alerts via cell phone. The important thing to remember is to take your time. Ask for repeats if necessary and if you think you miss something ask questions.

My next reminder would be that during weather events that frequency is monitored by the Office of Emergency Management. So, please do remember to keep it professional.

My future self will have headphones for my mobile rig and a place to mount my cell phone (yep that is not done yet). My hope is that each one of you pick one thing that you wish to improve upon within the next 6 months.

Today was the Raytown Hambash. I attended three meetings. Missed seeing most of you who came out to see all the ham gear. I have sent out information on the PKARC groups.io as well as the KS-LV-ARES groups.io concerning World Cup so I will not mention that here. Check out those posts and then reach out to me with your questions. I will do my best.

There is also our upcoming May 9<sup>th</sup> TTX at Bernard Park. See the PKARC calendar for more information.

Here is the schedule for May 2026 Sunday night JARA/ARES net, remember it is your responsibility to get a substitute and to notify me of any changes

At the end of the month you will need to send me your volunteer hours for anything other than KCHEART, JARA and ARES nets. For example- you attend a build session or you make an item on the Task book list (you will need to show it to me), or you check into any other local nets (PKARC- it counts). You just need to let me know. Also, your training hours for FEMA classes (website is back online), CW classes or meetings for your AEC positions all count. If you are doing EmComm Winlink you will need to CC my rocketmail email address to get credit.

Please use this link to send me volunteer hours:

[https://docs.google.com/forms/d/e/1FAIpQLSf0kJOkv6b\\_oGmWpfZRwSw8ZDbDWDMMXXXjC74jK-O7SMuPDPQ/viewform?usp=preview](https://docs.google.com/forms/d/e/1FAIpQLSf0kJOkv6b_oGmWpfZRwSw8ZDbDWDMMXXXjC74jK-O7SMuPDPQ/viewform?usp=preview)

Our remaining 2026 ARES Quarterly Meetings are:

May 9<sup>th</sup>, July 25<sup>th</sup>, September 5<sup>th</sup> and the October 3<sup>rd</sup> SET. On May 9<sup>th</sup> we will have a Table Top Exercise at Bernard Park at which we will focus in on two forms (ICS 214 and ICS 213). Keep in mind June 27-28 2026 is Field Day .

The NET LOGGER Special Event only has a few more nets left. Remember you need to send me your ICS 214. No matter how you did I value the learning! Send me what you got 😊

\*\*\*\*\*Special Event\*\*\*\*\*

I am kicking off the 1 Year Anniversary of me being your Emergency Coordinator with a Contest.

THE NET LOGGER Contest from April 1 to April 30th, 2026!!!

Utilizing the TE0ST in Net Control Manager (unless you are the actual) you will receive **10 points** for every ICS 214 that you send to me for ARES net, JARA net or PKARC net. Receive **6 points** for capturing the Announcement (If you are the actual logger your log counts and determines the Bonus points). Receive **1 point** for each member comment captured. **3 Bonus** points for any exact matches in the comment section amongst ICS 214 forms received. Points will be tallied. Side note: paper ICS is also ok to send to me.

First place - I will buy you a Field Day 2026 T-shirt

Second Place- I will buy you a Field Day Notebook

Third Place - I will buy you a Field Day pin or patch (your choice).

Happy Contesting!!

\*\*\*\*\*

Stay Cool, Stay Ready,

Roxann Kosmicki –

KS-LV-ARES ARRL® Emergency Coordinator

# NET CHECK-INS

Sign up [link](#) for PKARC positions

***	*** KE0SYO	*** KF0RWS	*** KZ0IMO	***	*** KZ0IMO	*** KFR0RWS	*** KB0YME
	W0MNA	W0MNA	W0MNA		KF0KOS	KB0YME	
	KF0PXE	NJ0P			KF0PXE	KF0PXE	
	KF0RWS	KF0KBC			KB0YME	KD7QOR	
	KF0KBC	KF0PXE			W0SER	KF0KBC	
	KB0YME	KZ0IMO			KF0KBC		
	NJ0P	KF0VJV			KD0PZV		
	KF0VJV				KF0RWS		

PKARC 1 April	9-Apr	15-Apr	22-Apr	29-Apr
* KF0KBC	* KF0KBC	* KF0KBC	* KF0KBC	* KF0KBC
** W9WTY	** KF0RWS	** KF0RWS	** KF0RWS	** W9WTY
*** KF0RWS	*** W9WTY	*** W9WTY	*** W9WTY	AA0MV
KB0YME	KD7QOR	KB0YME	KF0DQA	KF0RWS
KF0PXE	KA0ARW	KA0ARW	KD7QOR	K0AWW
KA0ARW	KB0YUV	KF0VJV	KF0VJV	KB0YME
KF0VJV	KF0KOS	KG0HG	KF0QAL	KA0ARW
KD7QOR	KF0QAL	KF0KOS	W0SER	KF0PXE
KE0SYO	W0SER	KF0QAL	KD0PZV	KF0YEV
W0SER	KE0SYO	W0SER	KB0YME	K0MDP
KF0KOS	KF0VJV	NR0R	W0SMF	KF0VJV
KF0DQA	KB0YME		KZ0IMO	KF0KOS
K0MDP	KF0LNZ		KF0KOS	KF0QAL
KF0LNZ	KG0HG			W0SER
KF0QAL				KF0LNZ

6-Apr	17511 17512
SJH	PMC
* KF0KOS	KB0YME
**KF0YME	KD0PZV
***	KF0KOS
KF0TXA	
KD0PZV	
KA0DJR	
K0MDP	
KF0RWS	

\* NC \*\*ANC \*\*\* Logger  
 ST short timer  
 EL Echolink

## Upcoming Net positions

	3-May	10-May	17-May	24-May	31-May	7-Jun	14-Jun	21-Jun	28-Jun
JARA NC	KE0SYO	W0SER	KF0RWS	KZ0IMO	K0MDP	KE0SYO	KD0PXE	KD7QOR	KF0RWS
JARA ANC	KD0PXE	KD0PZV	KF0KOS	KD0PZV	KF0TXA	KD0PXE	W9WTY	W0SER	KF0TXA
JARA LOG	W0SER	KE0SYO	W9WTY	W0SER	KB0YME	KF0TXA	KZ0IMO	KZ0IMO	KD0PXE
ARES NC	KZ0IMO	KZ0IMO	KF0KBC	KF0KOS	KZ0IMO	KF0KBC	KZ0IMO	K0MDP	W9WTY
ARES ANC	KB0YME	KF0RWS	KD7QOR	K0MDP	K0AWW	KB0YME	KD7QOR	KZ0IMO	KZ0IMO
ARES LOG	K0MDP	KF0KBC	KZ0IMO	W9WTY	KF0KOS	KZ0IMO	KF0RWS	KE0SYO	W0SER

PKARC EFHW Antenna Build Notes, 25 Feb 2026

The PKARC build session EFHW antenna kit goes together rather quickly. The heart of the kit is a 49:1 UNUN. The club members wound the toroid during the January build session and then prepared the antenna wire and new coax during the February build session. These notes focus on the build steps and initial tuning of the antenna.

The Toroid windings (49:1) took about 30 minutes; one must remember to only count windings passing through the toroid center. I used a 5/8-inch wood bit to drill a hole for the coax connector and a 3/8-inch bit to drill holes for the antenna wire and counterpoise wires. These two steps took about 10 minutes. After the toroid was wound it took about 45 minutes to clean, insert align and solder the primary and secondary windings and solder the capacitor. I tested the continuity using a meter ensuring a good connection from coax to antenna wire. I spent about 25 minutes measuring and preparing the 66-foot antenna wire - 26 AWG stealth wire from DX engineering.



The initial field test was at WBSP from two known locations for good operations – a) a tall tree for Sloper configuration and b) an open area for horizontal configuration. I did stress the build by dropping from waist high onto the ground and applying tension for a taut employment between trees. The Sloper was about 35 ft high and 10ft on the low end. The first SWR readings from the Sloper ranged from 1.6 to 1.3 across five bands without wire adjustment. The second SWR readings from the open area ranged from 20ft high endpoint at 15 ft high. Similarly, the SWR readings were good ranging from 1.2 to 1.6 across the five bands. See table below.

Freq/SWR	Tall Tree (Sloper 35 ft, 45 degrees)	Open Area (flattop 20 ft, 15 degrees)
28.400	1.5	1.4
24.900	1.6	1.6
21.200	1.3	1.2
14.100	1.5	1.5
7.100	1.4	1.4

I used this antenna at Freeze your keys in a flattop configuration. I made a ten CW contacts from stations across the US and the W0EBB call was captured on the RBN network in Costa Rica (TI7W) and England (G4IRN) more than 4000 miles away. The power level was set 40 watts for all these contacts. This antenna is a lightweight “keeper” just like the previous club-built antennas – QRP EFHW (2023) and 20/40 trap dipole (2024).

### WSPR: Tiny Signals, Big Reach

WSPR (Weak Signal Propagation Reporter) is a low-power digital mode designed to test and map radio propagation by sending and receiving extremely brief, highly efficient transmissions. Created by Joe Taylor, K1JT, and released in 2008 as part of a suite of weak-signal tools, WSPR was built specifically to detect signals that are often too weak to support conversational contacts but are perfect for studying how radio waves travel across the globe.

WSPR quickly attracted interest from experimenters and propagation researchers because it could decode signals well below the noise floor, enabling mapping of paths that would otherwise remain invisible. The mode's value increased with the growth of the WSPRnet database and cluster of spotting servers, which aggregate reception reports from stations worldwide to produce propagation maps and statistics.

#### How WSPR works

- Sending stations transmit short, tightly encoded beacon messages (callsign, grid locator, and power) at fixed times and frequencies.
- Transmissions use very narrow bandwidth and long symbol durations to achieve extremely high sensitivity (decoding often possible many dB below the noise floor).
- Receiving stations decode any heard beacons and automatically upload reports (time, frequency, SNR, drift, distance) to WSPRnet, building a global picture of propagation conditions.

The primary use for WSPR is identifying which bands and routes are open at a given time, including sporadic-E, ionospheric F-layer, and tropo paths. Operators use WSPR to measure real-world performance of antennas, feedlines, and transmitters by observing received signal reports at multiple distances. Portable and battery-powered stations use WSPR to demonstrate long-distance contacts at milliwatt-watt power levels. Clubs and instructors also use WSPR to teach propagation concepts and data-driven amateur-radio experimentation.

More uses are being found for WSPR. Enthusiasts and researchers explore adapting WSPR-like encoding principles for ultra-low-power telemetry where occasional, tiny status beacons are needed, such as for the Internet of Things (IoT). Larger-scale, continuous monitoring projects use aggregated WSPR reports to detect subtle, long-term changes in ionospheric behavior and space-weather effects. WSPR data also increasingly supports academic and space-weather research, often combined with other datasets (*e.g.*, ionosonde, GNSS TEC) to improve models of the ionosphere. The future looks bright for WSPR as developers experiment with combining WSPR's ultra-weak-signal techniques with newer digital tools and scheduling approaches to support more robust automated networks for global telemetry or environmental sensing.

If you want to experiment with WSPR, transmit at standard WSPR power levels (often 5 W or less) and include accurate grid locator and power in dBm. Keep transmit frequency and timing strictly aligned with WSPRnet recommendations to maximize decoding. Run a receive-only station if you want to gather propagation data without transmitting; upload reports to WSPRnet to contribute to the community dataset. Make sure to compare your WSPR reports with other data sources (sunspots, geomagnetic indices, ionosonde data) for deeper analysis.

WSPR turns the faintest detectable signals into actionable propagation intelligence. Its automated, crowd-sourced reporting model creates a continuously updated, globally distributed sensing network—valuable to hams, researchers, educators, and experimenters testing low-power communication and studying the upper atmosphere. As interest in low-power, long-range IoT and citizen-science monitoring grows, WSPR's techniques and dataset continue to find new applications beyond traditional amateur use.

This article was written with the assistance of ChatGT.

## **Kansas City Distributed Communications (KCDC) Project**

Contributed by Rick Reichert, NJØP, Foreign Correspondent, Tahlequah, OK

### **PART III**

This is the long-promised continuation of the series about the KCDC project. To refresh your knowledge, please see Parts I and II in the January and February 2025 issues of QRZ. Part I is a 50,000-foot view of the concept and importance of its adoption for the KC metro area. Part II starts discussion on the architecture.

The next several installments are to serve as catalysts. There is no project design, per se. I'm providing concepts that, if adopted, can be applied based on the current interest and make-up of the club and its supported agencies.

**Situation.** Our communities have recognized the value of Amateur Radio by providing an operating position in the EOC, mobile command vehicle, incident command trailer, and at each of the hospitals. These positions put the Radio Amateur at the heart of incident communications. As we have experienced through participation in incidents, events and Simulated Emergency Tests (SET), the Amateur Radio network is comprised of multiple nets: Regional, local, tactical, and hospital nets using digital, HF, and voice modes. One position supports one radio operator. If the operator has more than one function at a time, the degree of difficulty increases exponentially. Each operator function needs a dedicated operator. There is not enough room in the communication facility to add more Amateur Radio positions. The radio operator is not usually with the people who need communications. As we've seen, Radio Amateurs are usually

left to their own devices and the supported agency personnel are somewhere else.

**Vision.** You are a Radio Amateur supporting a large incident in the KC area. You are embedded with the Providence Medical Center Incident Management Team in the basement. They are using the National Incident Management System (NIMS) structure which you learned about in ICS 100/200/700/800 courses. Their planning team needs information from field teams that are not within a KCHEART-connected facility. On the same laptop you're using to keep your ICS-214 log, you open the KCDC application and see the suite of radios available to you in several KCDC facilities across the greater metro area. You select the radio that is turned to the field team frequency and in their proximity. By pressing your PTT, you're communicating 50 miles away from the basement of Providence. You quickly collect the needed information.

As a KCDC participant, you have access to radio suites every day. This is especially useful to new Radio Amateurs who do not yet have HF capability. From a KCDC-enable connection, they can work any HF radio in the network and make contacts.

If this concept appeals to you, please read on and respond to the survey mentioned at the end of the article. If the results of the survey are favorable, I will continue the series of articles described on the next page. If not, I'll continue to test bed the concept but not publish in the QRZ.

### Stage 1: Proof of Concept

This stage requires a rudimentary test environment. This includes a mini-mesh link that mimics what is already operational between Saint John Hospital and Providence Medical Center. Place a remote-capable radio on one side of the link. Place a laptop on the other side. Run stock remote radio software or use a console to send command line instructions over the link to the radio. Test the ability to control the radio through the link.

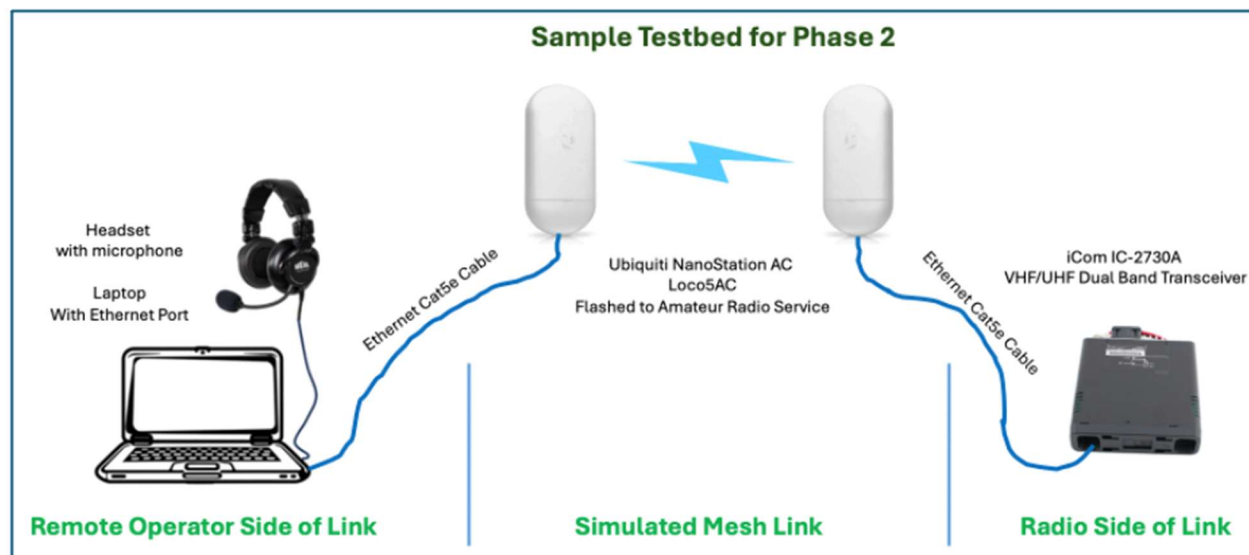
**Oklahoma Test Bed.** I'm going to try and set up my own test bed with scrounged parts. I have a set of 5 GHz bridge nodes which I will dial down to the lowest power and operate across the "lab" in my shop. I acquired an Icom IC-2730A at HamCation 2025 that has an I/O port and a Communications Interface - V (CI-V) that allows the radio to be queried and controlled from a PC. The testbed will be used to determine what additional parts and programming are needed to perform CI-V functions through the Mesh link. CI-V does not have audio in/out and PTT. We will need to address on-the-air functions in the next Stage. This stage is to prove a radio control head

functions can be accomplished from a distant location by computer via an IP-based network.

### Stage 2: Audio In/Out and PTT

We know we can send voice, video, and control functions over a Mesh link with ease. Using a laptop computer, the challenge of Stage 2 is to be able to hear the radio audio from a remote location and for the radio to hear audio intended for transmission over the air.

Adding audio and push-to-talk adds a few degrees of difficulty since these functions are not part of the radio's "control head". The Mesh link can carry the audio bi-directionally without noticeable delay. The obstacle is connecting audio from the mesh node to the radio. Even more challenging is converting a software or hardware PTT activation at the remote end to an actual closed circuit (PTT to ground) at the radio. Design for PTT should include positive assurance that when the PTT is engaged, the radio is keyed. More importantly, when the PTT switch is released, there is confirmation received from the radio that it is no longer transmitting.



### Stage 3: Operator Interfaces

This stage begins with a mock-up of the operator console. It may look like a mini-computer aided dispatch console modeled on what the county dispatchers use. The various radios available to the operator are displayed. Color-codes tell the operator whether the radio is idle, receiving or transmitting. Next, the KCDC application needs to be built.

### Stage 4: Supervisory Functions

In this stage, we're adding a layer of overhead that governs what will be presented to the user interface. This may be the radio functional assignment, operator privileges, radio location, and frequency. Autonomous supervisory functions may include performing as a controller ensuring smooth multi-user traffic. Safety controls are needed to monitor time-out timers and user "heartbeat" when a radio is in transmit.

### Stages 5-X: Future Enhancements

As the project progresses, we'll discover more capabilities and challenges. Reaching a functional level doesn't necessarily mean we are done with the project. There is always room for improvements, enhancements, and expansions. These stages can be addressed later.

**Lost Opportunities.** The more we let time slip by without advancing KCDC, the more grant dollars we let slip through our fingers. There is plenty of money on the table. If we do not ask for it, we will never get it. The worst a philanthropy can say to our request is, "no." Even if they do shoot down a grant proposal, that is an opportunity to fix and strengthen the submission and send it in during the next window. The money is out there for precisely what we are doing.

**Conclusion for Part III.** If we move forward on the KCDC project, there are two main efforts we need to pursue in the near term: Proof-of-concept and funding. These work together to provide opportunity and resources that add fun capabilities to our club while serving the public interest. There is plenty of things to do for new and seasoned Hams alike. It is also a way to engage other clubs and supported agencies in our sphere of influence.

**Quickie Survey.** Please take advantage of the 1-question KCDC Interest Survey on [pkarc.groups.io](http://pkarc.groups.io). Your response will determine my investment of time on KCDC going forward.



Icom Communications Interface-V (CI-V) for the IC-2730A provides the means to perform control head functions from a remote laptop. Below is a partial display of the command table.

Cmd.	Sub cmd.	Data	Description
00		See p.26	Send operating frequency for transceive
01		See p.26	Send operating mode for transceive
03		See p.26	Read operating frequency
04		See p.26	Read operating mode
05		See p.26	Send operating frequency
06		02	Select AM mode
		05	Select FM mode
07	D0		Select A band Set the Main band as the A band
	D1		Select B band Set the Main band as the B band
0C		See p.26	Read frequency offset (Below 100 Hz is omitted)
0D		See p.26	Send frequency offset
0F			Read duplex setting (10=simplex, 11=DUP-, 12=DUP+)
	10		Set simplex operation
	11		Set DUP- operation
	12		Set DUP+ operation

## ***Up Coming Events You Should Have on Your Calendar***

Ham Radio [Work All Stations](#) 250 celebration (all year long)

May 4<sup>th</sup> KC Heart

May 7<sup>th</sup> PKARC monthly meeting

May 9<sup>th</sup> ARES Quarterly Training, Table Top Exercise

[May 9<sup>th</sup>](#) Amateur Radio DoW Armed Forces Day Crossband Test

[May 15<sup>th</sup>](#) Dayton Hamvention

June 1<sup>st</sup> KC Heart

June 4<sup>th</sup> PKARC monthly meeting

June 18<sup>th</sup> Monthly build session

June 27<sup>th</sup> – 28<sup>th</sup> Field Day [main@PKARC.groups.io](mailto:main@PKARC.groups.io) | [Event: ARRL Field Day 2026 - Saturday, June 27, 2026](#)

### **ARRL Contest**

6 – 7 June International [Digital](#) Contest

13 – 15 June [VHF](#)

20 June Kids [Day](#)

11 – 12 July [HF World Championship](#)

Local area public service events [calendar](#) from Larrys List

### **Training links**

[EMCOMM-Training.org](http://EMCOMM-Training.org)

FEMA [NIMS](#) training

[ARRL](#) Training

ARRL [On The Air Live](#)

Photos

QSL cards we have received via email


**KI5ZAZ** 

Jason M Mullins  
10394 Kelli Dr  
Saint Amant, LA 70774




Confirming QSO With	Day	Month	Year	UTC Time	Band	Frequency	RST Sent	RST Rcvd	Mode
KS0LV	07	06	2025	01:40	20m	14.310 MHz	59	59	SSB

73, Thanks for the QSO. I hope to meet you further down the log.

**AE4GW** 

Greg Wilde  
200 Anglewood Dr  
Lenoir City, Tennessee 37772  
United States



Confirming QSO With	Year	Month	Day	UTC Time	Band	Report	Mode
KS0LV	2025	06	07	01:39	20m	59	SSB

Yaesu FTDX-101MP, Antenna - Chameleon Emcomm III. Thanks for the QSO. 73, Greg

ITU: 8 CQ:4 Grid: EM75vt Loudon County

